

ANNUAL SUMMARY OF

# REPORTABLE DISEASES 2017

Columbus & Franklin County, Ohio





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Columbus & Franklin County, Ohio

**Published September 2018** 

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Cover Image: This illustration depicts a three-dimensional (3D), computer-generated image of a group of Gram-negative, Legionella pneumophila, bacteria. The artistic recreation was based upon scanning electron microscopic (SEM) imagery. Image obtained from phil.cdc.gov.

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## **ACKNOWLEDGEMENTS**

We would like to thank the staff of:

#### **Columbus Public Health**

Office of Epidemiology José A. Bazan, DO Karen S. Fields, MS, BSN, RN Ann Luttfring Elizabeth Koch, MD, MPH&TM Naomi Tucker, RN, MPH, CIC Luke K. Jacobs, MPH, RS/REHS Michael J. Fielding, RS, MS Mysheika Williams Roberts, MD, MPH

#### **Franklin County Public Health**

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## INTRODUCTION

Infectious diseases are illnesses caused by microorganisms, such as bacteria, viruses, parasites and fungi. The route of transmission varies by disease and may include direct contact with contaminated body fluids or excretions, contact with contaminated objects, inhalation of contaminated airborne particles, ingestion of contaminated food or water, or transmission from an animal or vector (i.e., arthropod) carrying the microorganism.

According to Ohio Administrative Code 3701-3-02, cases and suspected cases of selected infectious diseases are required to be reported to state and local public health agencies. These "reportable diseases" or "reportable conditions" were determined to be of public health significance in Ohio. Many of these diseases must also be reported to the Centers for Disease Control and Prevention (CDC) as part of national public health surveillance of infectious diseases.

For over 15 years, Columbus Public Health and Franklin County Public Health have joined forces to make the reporting, tracking and investigation of infectious disease cases easier and more convenient through the centralized Infectious Disease Reporting System (IDRS). This system provides early identification of potential outbreaks and new trends in infectious diseases. Infectious disease staff ensure proper investigation, timely follow-up of case reports and interventions to prevent additional cases.

The 2017 Annual Summary includes cases of reportable diseases that were diagnosed among residents of Columbus and Franklin County, reported to public health and found to meet the public health surveillance definition of a confirmed, probable or suspected case. These data do not represent all cases of reportable infectious diseases that occurred in the community because individuals may not seek medical care for mild or asymptomatic infections. Additionally, a reported case of disease may not meet the surveillance definition of a confirmed, probable or suspected case. Surveillance definitions are designed to standardize data collection and reporting across public health jurisdictions and may differ slightly from clinical definitions used in patient management. Outbreaks or media coverage of a particular disease can also influence testing and reporting rates. Data in this summary are considered provisional.

This summary is intended to be a resource for individuals and public health partners concerned about infectious diseases in Columbus and Franklin County. Further information on infectious diseases and reporting procedures may be obtained by contacting Columbus Public Health or Franklin County Public Health or by visiting www.IDRSinfo.org.

#### **KFY FINDINGS:**

- In 2017, 2,873 cases of infectious disease\* were reported among Columbus City and Franklin County residents, compared to 3,454 cases reported in 2016.
- Franklin County's total rate of infectious disease\* decreased from 273.1 cases per 100,000 population in 2016 to 222.4 cases per 100,000 in 2017.
- Rates of campylobacteriosis, gonorrhea, invasive group A streptococcal disease (IGAS), invasive Streptococcus pneumoniae disease (ISP) and syphilis increased annually from 2014 to 2017.
- The rate of typhoid fever in 2017 was over 10 times greater than in 2016, due to an outbreak among attendees of a celebratory event (see p. 15 for more information).

\*Includes confirmed, probable and suspected cases of communicable disease, excluding hepatitis B and C and sexually transmitted infection

# DEMOGRAPHIC PROFILE OF FRANKLIN COUNTY

## FRANKLIN COUNTY POPULATION, 20171

- The population of Franklin County increased 2.2 percent from over 1.26 million in 2016 to over 1.29 million in 2017
- 51.2 percent of Franklin County residents were female, and 48.8 percent were male.
- 67.9 percent of Franklin County residents were White, 23.2 percent were Black or African American, 5.4 percent were Asian, 0.3 percent were American Indian or Alaskan Native, 0.1 percent were Native Hawaiian or Other Pacific Islanders and 3.2 percent identified as two or more races.
- 5.5 percent of Franklin County residents were Hispanic or Latino.

## TABLE 1: FRANKLIN COUNTY POPULATION BY GENDER, 2017<sup>1</sup>

GENDER	20	)17
	POPULATION	PERCENT
Female	661,710	51.2
Male	630,271	48.8
Total	1,291,981	100

## TABLE 2: FRANKLIN COUNTY POPULATION BY RACE, 2017<sup>1</sup>

RACE	20	)17				
	POPULATION	PERCENT				
White	876,645	67.9				
Black or African American	299,921	23.2				
Asian	69,382	5.4				
American Indian and Alaska Native	4,013	0.3				
Native Hawaiian and Other Pacific Islander	777	O.1				
Two or more races	41,243	3.2				
Total	1,291,981	100				

## TABLE 3: FRANKLIN COUNTY POPULATION BY ETHNICITY, 2017<sup>1</sup>

ETHNICITY	20	017
	POPULATION	PERCENT
Hispanic or Latino	70,887	5.5
Non-Hispanic or Non-Latino	1,221,094	94.5
Total	1,291,981	100

TABLE 4: FRANKLIN COUNTY POPULATION BY AGE GROUP, 2017<sup>1</sup>

AGE (YEARS)	20	017
	POPULATION	PERCENT
0-4	92,779	7.2
5-14	163,054	12.6
15-24	174,269	13.5
25-34	234,824	18.2
35-44	171,567	13.3
45-54	156,856	12.1
55-64	147,276	11.4
65-74	91,848	7.1
75-84	41,527	3.2
85+	17,981	1.4
Total	1,291,981	100

TABLE 5: ENTERIC DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

ENTE	RIC DISEASES																
	Year:		20	14			20	15			20	16			20	17	
	Population:		1,231	1,393			1,251	,722			1,264	1,518			1,29	1,981	
			rmed		.11		rmed		.II		rmed	A			rmed	A	
		& Pro		Stat			bable	Stat			bable	Stat		& Pro		Stat	
CLASS	DISEASE NAME	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>										
В	Amebiasis	2	0.2	2	0.2	3	0.2	3	0.2	8	0.6	8	0.6	4	0.3	6	0.5
В	Campylobacteriosis	78	6.3	89	7.2	113	9.0	113	9.0	172	13.6	172	13.6	226	17.5	226	17.5
A	Cholera	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Cryptosporidiosis	35	2.8	37	3.0	75	6.0	107	8.5	931	73.6	958	75.8	66	5.1	67	5.2
В	Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	0.5	6	0.5
В	Escherichia coli O157:H7 and Shiga toxin-producing <i>E. coli</i> (STEC)	46	3.7	52	4.2	51	4.1	60	4.8	47	3.7	83	6.6	61	4.7	87	6.7
В	Giardiasis	46	3.7	46	3.7	69	5.5	71	5.7	90	7.1	97	7.7	94	7.3	98	7.6
В	Hemolytic uremic syndrome (HUS)	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	2	0.2	1	0.1	1	0.1
В	Hepatitis A*	5	0.4	12	1.0	6	0.5	6	0.5	13	1.0	19	1.5	7	0.5	17	1.3
В	Hepatitis E*	0	0	1	0.1	0	0.0	0	0.0	1	0.1	3	0.2	2	0.2	6	0.5
В	Listeriosis	4	0.3	4	0.3	2	0.2	3	0.2	2	0.2	2	0.2	3	0.2	3	0.2
В	Salmonellosis	148	12.0	158	12.8	150	12.0	156	12.5	185	14.6	194	15.3	151	11.7	151	11.7
В	Shigellosis	46	3.7	46	3.7	172	13.7	176	14.1	385	30.4	407	32.2	218	16.9	220	17.0
В	Trichinellosis	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	1	0.1	0	0.0	0	0.0
В	Typhoid fever	2	0.2	3	0.2	3	0.2	4	0.3	3	0.2	3	0.2	27	2.1	31	2.4
В	Vibriosis	0	0.0	0	0.0	1	0.1	1	0.1	1	0.1	1	0.1	6	0.5	6	0.5
В	Yersiniosis	6	0.5	6	0.5	4	0.3	4	0.3	5	0.4	5	0.4	2	0.2	10	0.8

<sup>†</sup> Rate per 100,000 population

<sup>\*</sup> In Annual Summaries prior to 2016, hepatitis A and hepatitis E were included in the "Hepatitis" disease table.

TABLE 6: HEPATITIS B & C AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

HEPAT	TITIS B & C																
	Year:		20	14			20	15			20	16			20	17	
	Population:		1,231	,393			1,251	1,722			1,264	4,518			1,29	1,981	
	Confirmed All & Probable Statuse # of Case # of Case					Confi & Pro	rmed bable	A Stat	ll uses		rmed bable	A Stat		Confi & Pro	rmed bable	A Stat	ll uses
CLASS	DISEASE NAME	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>
В	Hepatitis B, acute	*	*	*	*	72	5.8	72	5.8	73	5.8	73	5.8	71	5.5	71	5.5
В	Hepatitis B, chronic	*	*	*	*	533	42.6	533	42.6	464	36.7	464	36.7	515	39.9	515	39.9
В	Hepatitis B, perinatal	2		2		0		0		0		0		0		0	
В	Hepatitis C, acute	1	0.1	1	0.1	2	0.2	2	0.2	46	3.6	46	3.6	43	3.3	43	3.3
В	Hepatitis C, chronic	1,513	122.8	1,513	122.8	1,877	149.9	1,877	149.9	2,366	187.1	2,366	187.1	2,315	179.2	2,315	179.2

**COUNTS & RATES** 

<u>О</u>П

REPORTABLE

DISEASES,

continued

TABLE 7: SEXUALLY TRANSMITTED INFECTIONS AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

SEXUA	ALLY TRANSMITTED	INFEC	TION	S													
	Year:		20	14			20	15			20	16			20	17	
	Population:		1,231	1,393			1,25	1,722			1,264	1,518			1,29	1,981	
			rmed bable	A Stat			rmed bable			Confirmed & Probable		A Stat					ll uses
CLASS	DISEASE NAME	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†						
^	HIV/AIDS*	215	17.5	215	17.5	197	15.7	197	15.7	199	15.7	199	15.7	238	18.4	238	18.4
В	Chancroid	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Chlamydia trachomatis infections	8,353	678.3	8,353	678.3	9,442	754.3	9,442	754.3	9,892	782.3	9,892	782.3	9,413	728.6	9,413	728.6
В	Gonorrhea (Neisseria gonorrhoeae)	2,898	235.3	2,898	235.3	3,264	260.8	3,264	260.8	4,276	338.2	4,276	338.2	4,447	344.2	4,447	344.2
В	Syphilis**	227	18.4	227	18.4	252	20.1	252	20.1	278	22.0	278	22.0	323	25.0	323	25.0

<sup>†</sup> Rate per 100,000 population.

<sup>†</sup> Rate per 100,000 population

<sup>\*</sup> Data in the Ohio Disease Reporting System may not be accurate for this time period and are not included in this report.

<sup>--</sup> Population data are not available for children 0-24 months old.

<sup>^</sup>Report on forms and in a manner prescribed by the director, described in Ohio Administrative Code Chapter 3701-3-12.

<sup>\*</sup>Case counts obtained from the Ohio Department of Health (see Technical Notes).

<sup>\*\*</sup>Syphilis data include primary and secondary cases only.

TABLE 8: VACCINE-PREVENTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

VACCINE-PREVENTABLE DISEASES  Year: 2014 2015 2016 2017																	
	Year:		20	)14			20	)15			20	16			20	)17	
	Population:		1,23	1,393			1,25	1,722			1,264	4,518			1,29	1,981	
			rmed bable		ll uses	Confi & Pro	rmed bable		ll uses	Confi & Pro	rmed bable	A Stat			rmed bable		All cuses
CLASS	DISEASE NAME	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†
Α	Diphtheria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Haemophilus influenzae (invasive disease)	14	1.1	15	1.2	12	1.0	12	1.0	10	0.8	10	0.8	22	1.7	22	1.7
В	Influenza-associated hospitalization	829	67.3	833	67.6	639	51.0	641	51.2	288	22.8	290	23.0	784	60.7	785	60.8
В	Influenza-associated pediatric mortality	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Measles	1	0.1	2	0.2	1	0.1	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0
А	Meningococcal disease	1	0.1	1	0.1	4	0.3	4	0.3	1	0.1	1	0.1	1	0.1	1	0.1
В	Mumps	415	33.7	458	37.2	6	0.5	21	1.7	2	0.2	14	1.1	8	0.6	8	0.6
В	Pertussis	279	22.7	365	29.6	230	18.4	332	26.5	372	29.4	535	42.3	277	21.4	393	30.4
В	Poliomyelitis (including vaccine-associated cases)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Rubella (congenital)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Α	Rubella (not congenital)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Streptococcus pneumoniae, invasive disease (ISP)*	96	7.8	96	7.8	105	8.4	106	8.5	119	9.4	121	9.6	161	12.5	167	12.9
В	Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Varicella	69	5.6	71	5.7	56	4.5	63	5.0	69	5.5	78	6.2	50	3.9	54	4.2

**COUNTS & RATES** 

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REPORTABLE

DISEASES, continued

<sup>†</sup> Rate per 100,000 population

<sup>\*</sup> In Annual Summaries prior to 2016, Streptococcus pneumoniae, invasive disease, was included in the "Other reportable diseases" table.

TABLE 9: VECTORBORNE AND ZOONOTIC DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

VECTO	ORBORNE AND ZOO	NOTIC	DISE	ASES													
	Year:		20	014			20	15			20	16			20	17	
	Population:		1,23	1,393			1,251	,722			1,264	1,518			1,291	1,981	
		Confi	rmed	Α	.II	Confi	rmed	Α	II	Confi	rmed	Α	JI	Confi	irmed	Α	AII .
		& Pro	bable	Stat	uses	& Pro	bable	Stat	uses	& Pro	bable	Stat	uses	& Pro	bable	Stat	uses
CLASS	DISEASE NAME	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>
В	Babesiosis	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1	0	0.0	5	0.4
В	Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	5	0.4
В	Chikungunya	N/A	N/A	N/A	N/A	4	0.3	4	0.3	0	0.0	0	0.0	1	0.1	1	0.1
В	Dengue	2	0.2	2	0.2	2	0.2	2	0.2	2	0.2	2	0.2	2	0.2	3	0.2
В	Eastern equine encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Ehrlichiosis/Anaplasmosis	0	0.0	2	0.2	1	0.1	3	0.2	0	0.0	0	0.0	1	0.1	1	0.1
В	Hantavirus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	La Crosse virus disease (other California serogroup virus disease)	1	0.1	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1
В	Lyme disease	19	1.5	43	3.5	21	1.7	44	3.5	19	1.5	51	4.0	16	1.2	76	5.9
В	Malaria	67	5.4	67	5.4	17	1.4	19	1.5	28	2.2	28	2.2	23	1.8	23	1.8
В	Other arthropod-borne disease*	4	0.3	5	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Α	Plague	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Powassan virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Psittacosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
В	Q fever	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	1	0.1
Α	Rabies, human	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Spotted fever rickettsiosis, including Rocky Mountain spotted fever (RMSF)	1	0.1	7	0.6	1	0.1	4	0.3	2	0.2	6	0.5	5	0.4	9	0.7
В	St. Louis encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Tularemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Viral hemorrhagic fever (VHF)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	West Nile virus infection	0	0.0	0	0.0	7	0.6	7	0.6	2	0.2	3	0.2	1	0.1	1	0.1
В	Western equine encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Yellow fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Zika virus infection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	1.1	16	1.3	2	0.2	4	0.3
	100 000 nanulation																

**COUNTS & RATES** 

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REPORTABLE

DISEASES, continued

<sup>†</sup> Rate per 100,000 population

N/A = not a reportable condition
\*Includes cases of arthropod-borne disease that did not belong to an individual disease category during the reporting period.

TABLE 10: OTHER REPORTABLE INFECTIOUS DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017

OTHE	OTHER REPORTABLE INFECTIOUS DISEASES  Year: 2014 2015 2016																
	Year:		20	)14			20	15			20	16			20	)17	
	Population:		1,23	1,393			1,25	1,722			1,264	4,518			1,29	1,981	
		Confi & Pro	rmed bable		ll uses		rmed bable		ll uses		rmed bable		ll uses		irmed bable		ll uses
CLASS	DISEASE NAME	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>
Α	Anthrax	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Any unexpected pattern of cases, deaths or disease	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0
Α	Botulism, foodborne	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Botulism, infant	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0
В	Botulism, wound	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Coccidioidomycosis	3	0.2	3	0.2	4	0.3	9	0.7	2	0.2	6	0.5	7	0.5	22	1.7
В	Creutzfeldt-Jakob disease	2	0.2	4	0.3	0	0.0	1	0.1	2	0.2	2	0.2	1	0.1	1	0.1
А	Influenza A- novel virus infection	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Legionnaires' disease	120	9.7	123	10.0	97	7.7	97	7.7	106	8.4	111	8.8	129	10.0	129	10.0
В	Leprosy (Hansen's disease)	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2	2	0.2
В	Meningitis, aseptic (viral)	67	5.4	67	5.4	83	6.6	86	6.9	85	6.7	86	6.8	32	2.5	32	2.5
В	Meningitis, bacterial (not <i>N. meningitidis</i> )	12	1.0	13	1.0	8	0.6	9	0.7	11	0.9	12	0.9	17	1.3	18	1.4
А	Middle East Respiratory Syndrome (MERS)	N/A	N/A	N/A	N/A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
А	Severe acute respiratory syndrome (SARS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Smallpox	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Staphylococcus aureus, with resistance or intermediate resistance to vancomycin (VRSA, VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
В	Streptococcal disease, group A, invasive (IGAS)	36	3.0	36	3.0	47	3.8	47	3.8	51	4.0	55	4.3	103	8.0	107	8.3

COUNTS & RATES OF REPORTABLE DISEASES, continued

TABLE 10: OTHER REPORTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2014-2017, continued

OTHE	R REPORTABLE DISE	ASES															
	Year:		20	14			20	15			20	16			20	17	
	Population:		1,231	1,393			1,25	1,722			1,264	4,518			1,29	1,981	
		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		A Stat	ll uses
CLASS	DISEASE NAME	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate†	# of Cases	Case Rate <sup>†</sup>
В	Streptococcal disease, group B, in newborn	8	0.4	8	0.4	17	0.9	17	0.9	12	0.6	12	0.6	8	0.4	8	0.4
В	Streptococcal toxic shock syndrome (STSS)	2	0.2	2	0.2	3	0.2	3	0.2	5	0.4	5	0.4	5	0.4	5	0.4
В	Toxic shock syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0
В	Tuberculosis (TB), including multi-drug resistant TB (MDR-TB)	49	4.0	49	4.0	40	3.2	40	3.2	50	4.0	50	4.0	53	4.1	53	4.1

COUNTS & RATES OF REPORTABLE DISEASES, continued

<sup>†</sup> Rate per 100,000 population for all diseases except "streptococcal disease, group B, in newborn," which is per 1,000 live births.² N/A = not a reportable condition

## DEATHS ASSOCIATED WITH DISEASE

In 2017, a total of 55 deaths occurred among confirmed and probable cases of reportable diseases in Franklin County. Three of these deaths were associated with multiple reportable diseases. Influenza-associated hospitalization was associated with the most deaths (n=26), followed by legionellosis (n=8), and Streptococcus pneumoniae invasive disease (n=5). The greatest number of deaths occurred among individuals aged 61-70 years. One death occurred among cases less than 18 years old.

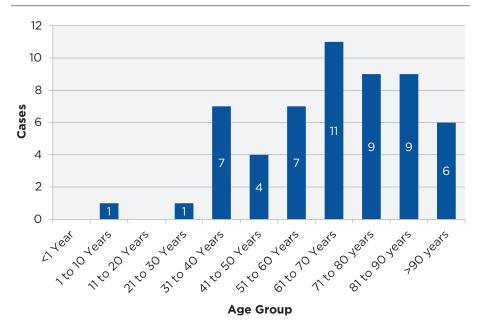
Death data were obtained from the Ohio Disease Reporting System (ODRS) and are subject to several limitations. A death is only captured in the ODRS record if the person dies during the course of a case or outbreak investigation. If a person dies after the investigation has ended, the record is not necessarily updated. Therefore, the number of deaths reported in Table 11 may underestimate the true number of deaths that occurred among reportable disease cases. Furthermore, investigators do not determine whether a reportable disease contributed to an individual's death. It is not possible to determine the true cause(s) of death without additional information from death or medical records.

TABLE 11: NUMBER OF DEATHS\* AMONG CONFIRMED AND PROBABLE CASES OF REPORTABLE DISEASE, EXCLUDING SEXUALLY TRANSMITTED INFECTIONS, FRANKLIN COUNTY, 2017

REPORTABLE DISEASE	DEATHS*
Campylobacteriosis	1
Creutzfeldt-Jakob disease	1
Coccidioidomycosis	1
Haemophilus influenzae (invasive disease)	1
Hepatitis B, acute	2
Hepatitis B, chronic	1
Hepatitis C, acute	2
Hepatitis C, chronic	2
Hepatitis E	2
Influenza-associated hospitalization	26
Legionellosis	8
Listeriosis	1
Salmonellosis	1
Streptococcal disease, group A, invasive (IGAS)	2
Streptococcus pneumoniae, invasive disease (ISP)	5
Tuberculosis	2

<sup>\*</sup>The number of deaths is specific to the reportable disease category. Three deaths occurred in association with more than one reportable disease.

## AGE DISTRIBUTION OF DEATHS AMONG CONFIRMED AND PROBABLE CASES OF REPORTABLE DISEASE, 2017 (N=55)



## **OUTBREAKS IN FRANKLIN COUNTY**

TABLE 12: NUMBER OF CONFIRMED AND PROBABLE OUTBREAKS REPORTED BY YEAR, FRANKLIN COUNTY, 2014-2017

OUTBREAK TYPE	2014		2015		2016		2017	
	Confirmed	Probable	Confirmed	Probable	Confirmed	Probable	Confirmed	Probable
Community	17	7	7	6	8	1	1	0
Foodborne	6	4	2	2	6	0	5	0
Health Care- Associated	10	3	24	1	7	2	12	4
Institutional	34	15	39	18	64	35	37	24
Unspecified (Class A)	0	0	1	0	0	0	0	0
Unusual Incidence	1	0	0	0	0	0	0	0
Waterborne	3	1	1	1	0	0	4	0
Zoonotic	0	1	1	1	1	1	0	0
Total	71	31	75	29	86	39	59	28

### OUTBREAK DEFINITIONS<sup>3</sup>

Outbreaks are Class C reportable conditions unless otherwise specified.

**Community:** Two or more cases of similar illness with a common exposure in the community and not considered a foodborne, waterborne, zoonotic, healthcare-associated or institutional disease outbreak.

Foodborne: Two or more cases of similar illness resulting from the ingestion of a common food.

**Healthcare-Associated:** The occurrence of cases of a disease (illness) above the expected or baseline level, usually over a given period of time, as a result of being in a healthcare facility or receiving healthcare-associated products or procedures. The number of cases indicating the presence of an outbreak will vary according to the disease agent, size and type of population exposed, previous exposure to the agent, and the time and place of occurrence.

**Institutional:** Two or more cases of similar illness with a common exposure at an institution (e.g., correctional facility, day care center, group home, school, assisted-living facility) and not considered a foodborne or waterborne disease outbreak.

**Unspecified (Class A Reporting):** Any unexpected pattern of cases, suspected cases, deaths or increased incidence of any other disease of major public health concern which, because of the severity of disease or potential for epidemic spread, may indicate a newly recognized infectious agent, outbreak, epidemic, related public health hazard or act of bioterrorism.

**Unusual Incidence:** Two or more cases of infectious disease that can be connected by person, place and time, and do not meet the criteria for another type of outbreak.

**Waterborne:** Waterborne disease outbreaks are divided into two categories, depending on the type of water implicated in the outbreak. Outbreaks associated with drinking water, water not intended for drinking (excluding recreational water) or water of unknown intent must meet two criteria: 1) two or more persons are epidemiologically linked by location of water exposure, time and illness, and 2) epidemiologic evidence implicates water as the probable source of illness. Outbreaks associated with recreational water must meet two criteria: 1) two or more persons are epidemiologically linked by location of recreational water exposure, time and illness, and 2) epidemiologic evidence implicates water or volatilization of water-associated compounds into the air surrounding an aquatic facility as the probable source of illness.

**Zoonotic:** Two or more cases of similar illness with exposure to the same animal or the same or similar species of animals and with epidemiologic evidence implicating animals as the probable source of illness.

#### **DISEASE SPOTLIGHT:**

## **GONORRHEA**

GONORRHEA		2017
Number of Cases		4,447
Rate*	Overall	344.2
	Female	275.8
	Male	416.0
Age of cases (in years)	Mean	29
	Median	26
	Range	1-84

<sup>\*</sup> Rate per 100,000 population

#### EPIDEMIOLOGY<sup>3, 4, 5</sup>

**Infectious Agent:** *Neisseria gonorrhoeae,* Gramnegative diplococcal bacteria.

**Case Definition:** Please see the Ohio Infectious Disease Control Manual: www.odh.ohio.gov/pdf/IDCM/gonorr.pdf

**Mode of Transmission:** Infection can result from any sexual contact, including contact with the penis, vagina, anus or mouth of an infected partner. Gonorrhea can be spread perinatally if a pregnant woman has gonorrhea during delivery.

**Incubation Period:** 3–8 days on average. Symptoms, if present, will appear within 1–14 days for men and within 10 days for women.

**Symptoms:** Asymptomatic infections are common. In men, urethritis symptoms include dysuria, urinary frequency, or white/yellow discharge. Testicular or scrotal pain and swelling can occur. In women, symptoms may include dysuria, increased vaginal discharge or vaginal bleeding between menstrual cycles. In infants, infections can be severe, including symptoms such as blindness, joint infection or life-threatening bloodstream infection.

**Treatment:** Please see CDC's current STD treatment guidelines: www.cdc.gov/std/tg2015/gonorrhea.htm. Dual therapy with a cephalosporin and azithromycin is currently recommended. Untreated gonorrhea can lead to serious complications and can increase the risk of transmitting and acquiring HIV.

**Antibiotic Susceptibility:** Due to high levels of resistance, fluoroquinolones are no longer recommended for gonorrhea treatment in the United States. In recent years, the prevalence of reduced azithromycin susceptibility has been increasing in all regions of the US. Although concern about potential cephalosporin resistance is growing, *N. gonorrhoeae* strains in the United States remain highly susceptible to ceftriaxone.

**Prevention:** Gonorrhea can be prevented by abstaining from vaginal, anal or oral sex, or by being in a long-term, mutually monogamous relationship with a partner who has been tested and is known to be uninfected. Latex condoms can prevent infection if used correctly and consistently.

Case counts and rates include confirmed and probable cases.

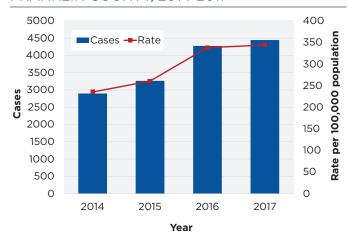
#### LOCAL FACTS:

In Franklin County in 2017:

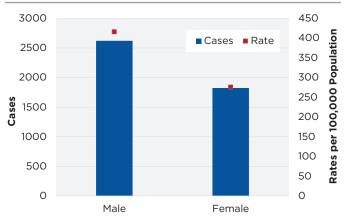
- The gonorrhea rate among men was 1.5 times the gonorrhea rate among women.
- The gonorrhea rate among Blacks was almost six times the gonorrhea rate among Whites (786.5 vs. 133.2 cases per 100,000 persons, respectively).

The Sexual Health Clinic at Columbus Public Health has participated in the Gonococcal Isolate Surveillance Project (GISP) since 2012. Through GISP, reduced susceptibility to azithromycin was identified among 30 *N. gonorrhoeae* urethritis cases (12 percent of isolates examined) during January to July 2017, a large and rapid increase compared to previous years.<sup>6</sup>

## GONORRHEA CASES AND RATES BY YEAR - FRANKLIN COUNTY, 2014-2017



## GONORRHEA CASES AND RATES BY SEX - FRANKLIN COUNTY, 2017



#### **DISEASE SPOTLIGHT:**

## **LEGIONELLOSIS**

LEGIONELLOSIS		2017
Number of Cases		129
Rate*	Overall	10.0
	Female	8.0
	Male	12.1
Age of cases (in years)	Mean	61
	Median	62
	Range	16-91

<sup>\*</sup> Rate per 100,000 population

#### EPIDEMIOLOGY<sup>3</sup>

**Infectious agents:** *Legionella* bacteria, most commonly *L. pneumophila.* 

**Case Definition:** Please see the Ohio Infectious Disease Control Manual: www.odh.ohio.gov/pdf/IDCM/legion.pdf.

Mode of Transmission: Legionella bacteria are most commonly transmitted by inhalation of aerosolized water containing the bacteria. Aspiration of contaminated drinking water is a less common route of transmission. The bacteria are ubiquitous in freshwater sources and thrive in warm water like that found in hot tubs, cooling towers, hot water tanks, large plumbing systems and air-conditioning systems of large buildings. Immunocompromised individuals have an increased risk of Legionnaires' disease.

**Incubation Period:** Legionnaires' disease: 2–10 days, with an average of 5–6 days. Pontiac fever: 5–72 hours, with an average of 24–48 hours.

**Symptoms:** Legionellosis is associated with two clinically and epidemiologically distinct illnesses: Legionnaires' disease, characterized by fever, myalgia, cough, and clinical or radiographic pneumonia; and Pontiac fever, a milder illness without pneumonia.

**Treatment:** Recommended treatment is a respiratory fluoroquinolone (e.g., levofloxacin) or a macrolide (e.g., azithromycin). Penicillin, cephalosporins and aminoglycosides are ineffective. Pontiac fever does not require antimicrobial treatment.

**Prevention:** Building owners can take steps to prevent the growth of *Legionella* in water distribution systems, heating-and cooling-ventilation systems and cooling towers through the development and use of water management plans, environmental controls and monitoring, and remediation or treatment plans if *Legionella* is detected. Facilities at higher risk for *Legionella* growth and transmission include those that house sensitive populations, have cooling towers or large complicated water systems, or are more than 10 stories high.

Case counts and rates include confirmed and probable cases.

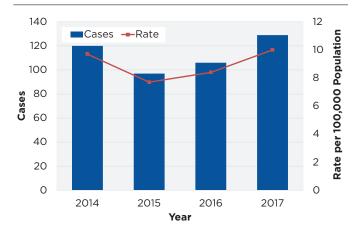
#### LOCAL FACTS:

In Franklin County in 2017:

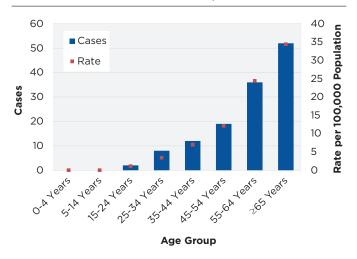
- Legionellosis rates increased with age; 40 percent of legionellosis cases occurred in persons aged 65 and older, with a rate of 34.4 cases per 100,000 population. No cases occurred in persons aged 14 and under.
- The rate of legionellosis among Blacks was almost two times the legionellosis rate among Whites (16.6 vs. 8.8 cases per 100,000 persons, respectively).

Franklin County Public Health and Columbus Public Health have experienced increases in legionellosis cases and rates each year since 2015.

## LEGIONELLOSIS CASES AND RATES - FRANKLIN COUNTY, 2014-2017



## LEGIONELLOSIS CASES AND RATES BY AGE GROUP - FRANKLIN COUNTY, 2017



#### **DISEASE SPOTLIGHT:**

## **SHIGELLOSIS**

SHIGELLOSIS		2017
Number of Cases		218
Rate*	Overall	16.9
	Female	16.8
	Male	17.0
Age of cases (in years)	Mean	15
	Median	5
	Range	0-66

<sup>\*</sup> Rate per 100,000 population

#### EPIDEMIOLOGY<sup>3</sup>

**Infectious Agents:** Shigella bacteria, including S. sonnei, S. flexneri, S. dysenteriae and S. boydii. Most cases in Ohio are due to S. sonnei.

**Case Definition:** Please see the Ohio Infectious Disease Control Manual: www.odh.ohio.gov/pdf/IDCM/shig.pdf.

**Mode of Transmission:** Shigella bacteria are usually transmitted directly from person to person via the fecal-oral route, but transmission can also occur through contaminated food or water. Shigella may remain in stool for up to two weeks after diarrhea has ended.

**Incubation Period:** 12–96 hours, with an average of 24–72 hours.

**Symptoms:** Symptoms most commonly include diarrhea, fever, abdominal pain/cramping, tenesmus, malaise and sometimes vomiting. Blood or mucus may be present in the stool. Asymptomatic infections are possible.

**Treatment:** Mild infections usually resolve without treatment in five to seven days. Antibiotic treatment can shorten the duration of diarrhea and eradicate *Shigella* from stool. Antibiotics are recommended for patients with severe disease, bloody diarrhea or compromised immune systems; appropriate treatment should be based on results of antibiotic susceptibility testing.

**Prevention:** Wash hands before eating or preparing food or drink and after using the bathroom or changing a diaper. Dispose of soiled diapers in a closed-lid container or bag, and appropriately disinfect diaper changing areas after use. Young children should be supervised to ensure thorough handwashing before eating and after using the bathroom. Individuals with diarrhea should not prepare food or drink for others or go swimming. Individuals with shigellosis should be excluded from handling food, attending or working in childcare or caring for patients directly until diarrhea has ceased and two consecutive stool samples are negative for *Shigella*.

Case counts and rates include confirmed and probable cases.

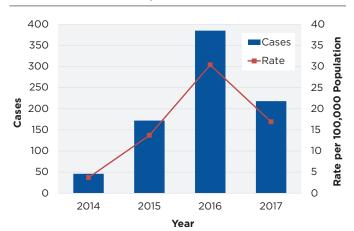
#### LOCAL FACTS:

In Franklin County in 2017:

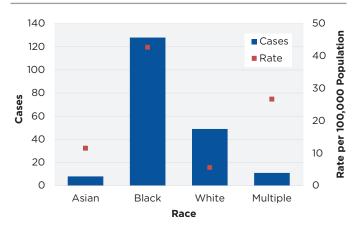
- Sixty-six percent of shigellosis cases occurred among children;
   48 percent of cases were less than five years old, with a rate of
   111.0 cases per 100,000 population.
- The shigellosis rate among Blacks was more than seven times the shigellosis rate among Whites (42.7 vs. 5.6 cases per 100,000 persons, respectively). The shigellosis rate among Asians was more than two times the shigellosis rate among Whites (11.5 vs. 5.6 cases per 100,000 persons, respectively).

In 2017, 13 shigellosis outbreaks were reported in Columbus and Franklin County; 12 (92 percent) of these occurred in institutional settings, such as schools or childcare centers.

## SHIGELLOSIS CASES AND RATES BY YEAR - FRANKLIN COUNTY, 2014-2017



## SHIGELLOSIS CASES AND RATES BY RACE - FRANKLIN COUNTY, 2017



#### FEATURED OUTBREAK INVESTIGATION:

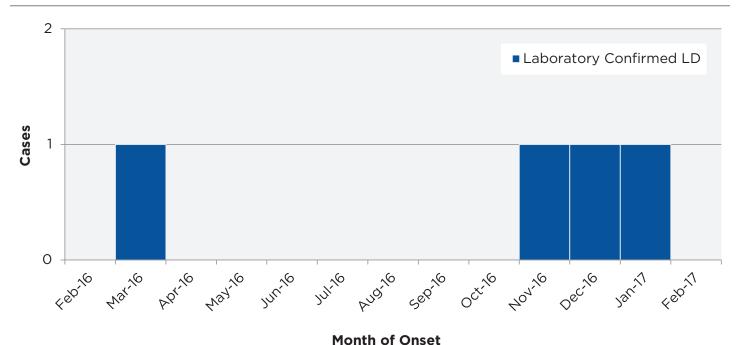
## LEGIONELLOSIS ASSOCIATED WITH AN APARTMENT COMPLEX

From April 2, 2016, through January 19, 2017, Franklin County Public Health (FCPH) received reports on four cases of Legionnaires' disease with exposure to an apartment complex during their incubation periods. Upon completion of the interview of the fourth case on January 25, 2017, and identifying the common exposure, an outbreak investigation was initiated. The apartment complex is an independent senior living facility with 100 units located in Reynoldsburg, Ohio. The facility is managed by a real estate investment and property management company based in Columbus, Ohio. No medical staff are on site, and care may be provided from an outside source managed personally by each resident. Public health interventions undertaken to prevent disease transmission included extensive environmental health investigation of the facility's water and air-handling systems. FCPH recommended the facility work with an experienced contractor to mitigate exposure to *Legionella* bacteria based on guidelines from the Centers for Disease Control and Prevention (CDC) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

A total of four confirmed Legionnaires' disease cases were identified in this outbreak investigation, including one case that was identified through retrospective case finding. Four cases (100 percent) were hospitalized. Two cases (50 percent) died within 30 days of Legionnaires' disease diagnosis. Two cases (50 percent) were female, and two (50 percent) were male. Cases' ages ranged from 54 years to 83 years, with a mean age of 69.5 years.

Legionellosis is associated with two clinically and epidemiologically distinct illnesses: 1) Legionnaires' disease, characterized by fever, myalgia, cough, and clinical or radiographic pneumonia, and 2) Pontiac fever, a milder illness without pneumonia. Water is the reservoir for *Legionella* bacteria. The bacteria are ubiquitous in fresh water sources and grow well in warm water, such as hot tubs, cooling towers, hot water tanks, water features, plumbing systems and air-conditioning systems in buildings.<sup>3</sup>

## OUTBREAK-ASSOCIATED LEGIONNAIRES' DISEASE (LD) CASES, BY MONTH OF ILLNESS ONSET - MARCH 2016 - JANUARY 2017



#### FEATURED OUTBREAK INVESTIGATION:

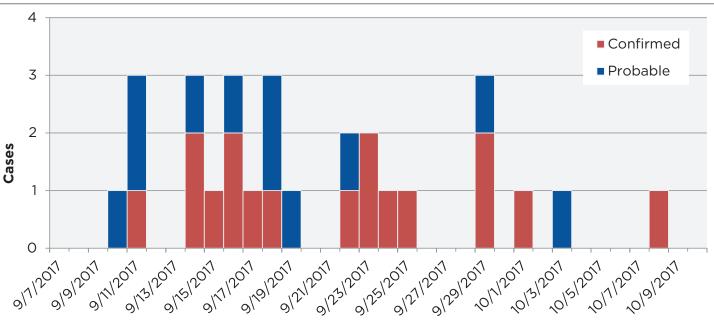
# TYPHOID FEVER ASSOCIATED WITH A CELEBRATORY EVENT

In early October 2017, Columbus Public Health (CPH) investigated two cases of typhoid fever reported through the Ohio Disease Reporting System (ODRS). By the next morning, an additional six possible typhoid fever cases had been reported to CPH and Franklin County Public Health (FCPH). Further investigation revealed that several cases had attended a party on September 9, 2017. CPH conducted community outreach sessions, interviewed event attendees, collected specimens for *Salmonella enterica* serotype Typhi testing, and developed and disseminated educational materials and a healthcare provider advisory.

A total of 96 individuals were tested for *S.* Typhi; 28 typhoid fever cases, including 17 culture-positive cases, were linked to the outbreak. An individual who prepared food for the event was found to be an asymptomatic carrier of *S.* Typhi. Pulsed-field gel electrophoresis (PFGE) analysis by the Ohio Department of Health Laboratory and whole genome sequencing analysis by the Centers for Disease Control and Prevention (CDC) revealed that isolates from the 17 culture-positive cases and the asymptomatic carrier were closely related. Of the 28 cases, 16 (57 percent) were female; 23 (82 percent) were non-Hispanic Black. Cases ranged in age from 5 years to 72 years, with a mean of 32 years and a median of 37 years. Fourteen cases (50 percent) were hospitalized. No deaths were associated with this outbreak. Epidemiologic analyses did not reveal a common food exposure or travel history among cases.

Typhoid fever is an illness caused by *Salmonella enterica* serotype Typhi, a bacterium that only lives in humans. Symptoms may include fever, headache, malaise, anorexia, constipation or diarrhea, and nonproductive cough. Approximately two to five percent of individuals who recover will become chronic carriers of *S.* Typhi and continue to shed the bacteria. Transmission occurs through the fecal-oral route, usually through food or water that have been contaminated by an infected individual or a carrier. The incubation period ranges from 3 days to more than 60 days, with an average of 7–14 days. In the United States, typhoid fever is relatively rare and most commonly occurs among international travelers. Proper hand washing and avoidance of risky foods while traveling internationally can help prevent typhoid fever. A vaccine is also available for travelers to areas with an increased risk of *S.* Typhi exposure.<sup>3</sup>

## OUTBREAK-ASSOCIATED TYPHOID FEVER CASES, BY ONSET DATE - SEPTEMBER 10, 2017 - OCTOBER 8, 2017



## TIMELINESS OF DISEASE REPORTING

As part of reportable disease surveillance, Columbus Public Health and Franklin County Public Health monitor and work to improve timeliness of disease reports and completeness of reportable disease records. While CPH and FCPH continually work to improve data completeness through internal processes and procedures, timeliness largely depends on recognition and rapid reporting of cases by healthcare providers and laboratories.

Timely infectious disease reporting enables public health agencies to track disease occurrence and implement appropriate interventions for disease prevention. Timeliness requirements vary based on the communicability and severity of the disease. In Ohio, Class A diseases are required to be reported immediately via telephone upon recognition that a case, a suspected case or a positive laboratory result exists. Class B diseases are required to be reported by the end of the next business day after the existence of a case, a suspected case or a positive laboratory result is known.<sup>3</sup>

In this analysis, a case's reporting lag time was defined as the time between the diagnosis date and the date of report to the local health department. Some cases are identified through laboratory testing instead of healthcare provider diagnosis. If diagnosis date was missing or occurred after the date of report to the local health department, a proxy date was used. These dates were obtained from case records in the Ohio Disease Reporting System (ODRS).

Table 13 lists selected diseases and their corresponding case counts, median and mean lag times, and proportion of cases missing diagnosis date. Median and mean lag time values should be less than one business day for Class A diseases (immediately reportable) and less than two business days for Class B diseases (reportable by end of next business day). Values that meet the lag time goal are shown in green; values that do not meet the goal are shown in red.

Regular monitoring of timeliness data helps to address two key issues: late reporters and missing data. If specific

reporters are found to be contributing to longer lag times, data will be shared with the reporter, challenges to timely reporting will be identified and addressed, and closer monitoring of reports will follow. Addressing missing or incorrect dates will improve data accuracy and aid in implementing appropriate interventions.

In addition to quality improvement efforts of CPH and FCPH, the Ohio Department of Health (ODH) and the Association of Ohio Health Commissioners publish a public health quality indicators report including timeliness and completeness data for select reportable diseases. The intent of this report is to satisfy the requirement in the Ohio Revised Code (ORC) 3701.98 for the sharing of data reported for the public health quality indicators with payers, providers, general and city health districts, and public health professionals. For more information on ODH public health quality indicators and to view the reports, please visit:

TABLE 13: REPORTING LAG TIME\* FOR CONFIRMED AND PROBABLE CASES OF SELECTED REPORTABLE DISEASES, FRANKLIN COUNTY, 2017

		2017			
REPORTABLE CONDITION	Reporting Requirement	Confirmed & Probable Cases	Median (business days)	Mean (business days)	% of Cases Missing Diagnosis Date
E. coli O157:H7 and Shiga toxin- producing E. coli (STEC)	By end of next business day	61	1.0	2.8	21.3%
Hepatitis A	By end of next business day	7	1.0	2.3	14.3%
Listeriosis	By end of next business day	3	1.0	0.7	0.0%
Measles	Immediately	0	N/A	N/A	N/A
Meningococcal disease	Immediately	1	1.0	1.0	0.0%
Mumps	By end of next business day	8	2.5	5.3	12.5%
Pertussis	By end of next business day	277	1.0	1.3	1.8%
Rubella	Immediately	0	N/A	N/A	N/A
Salmonellosis	By end of next business day	151	1.0	1.5	31.1%

<sup>\*</sup>Reporting lag time = Difference between the diagnosis date\*\* and the date the case was reported to the local health department

<sup>\*\*</sup>If blank, "Diagnosis Date" defaulted to the following ODRS date fields (in order): specimen collection date, laboratory result date, onset date, date reported to Ohio Department of Health, created date. If a date occurred after the date of report to the local health department, the diagnosis date defaulted to the next proxy.

## TECHNICAL NOTES

Ohio Administrative Code 3701-3-02, 3701-3-05, and 3701-3-12 require that communicable diseases be reported to local health departments.

### TABLES OF DISEASE COUNTS AND RATES

Reportable disease data are likely to underestimate true disease occurrence. For a case to be included in this report, a disease must have been diagnosed among a resident of Columbus or Franklin County, reported to public health, met the public health surveillance case definition and been recorded in ODRS at the time of data analysis. Data in this report are considered provisional.

"All Statuses" includes confirmed, probable and suspected cases.

DISEASE COUNTS AND RATES	DATA ARE CURRENT AS OF:
Chlamydia, gonorrhea, and syphilis	July 19, 2018
HIV/AIDS data from the Ohio Department of Health	June 30, 2018
All other reportable conditions	April 1, 2018

"Year" refers to the case event date in the Ohio Disease Reporting System (ODRS) for sexually transmitted infections; the date the case was counted for hepatitis B, hepatitis C and tuberculosis; and the date the case record was created in ODRS for all other conditions. For outbreaks, "year" is the year that the outbreak record was created in ODRS.

**"Event Date"** is calculated automatically in ODRS. For sexually transmitted infections, event date is the earliest specimen collection date. If specimen collection date is blank, event date is the earliest of the following dates: illness onset date, diagnosis date, date reported to the local health department, date reported to the Ohio Department of Health (ODH).

**Counts of newly diagnosed HIV/AIDS cases** were obtained from the ODH HIV/AIDS Surveillance Program. Diagnoses of HIV infection include persons with a diagnosis of HIV infection (not AIDS), a diagnosis of HIV infection and a later AIDS diagnosis, and concurrent diagnoses of HIV infection and AIDS. Yearly HIV case counts include all reported cases diagnosed in a given year.

#### CASE AND OUTBREAK CLASSIFICATIONS

Case definitions for nationally notifiable diseases are determined by the Council of State and Territorial Epidemiologists in conjunction with the Centers for Disease Control and Prevention (CDC). Definitions are published in the *Morbidity and Mortality Weekly Report* and posted to the CDC's National Notifiable Diseases Surveillance System website.<sup>8</sup> In Ohio, case and outbreak definitions can be found in Section 3 of the Infectious Disease Control Manual.<sup>3</sup> More information on reportable diseases and reporting procedures in Columbus and Franklin County can be found at www.IDRSinfo.org.

#### REPORTABLE DISEASE CLASS DEFINITIONS<sup>3</sup>

Reportable diseases in Ohio are grouped by class. Class definitions in 2017 were as follows:

**Class A:** Diseases of major public health concern because of the severity of disease or potential for epidemic spread. Report by telephone immediately upon recognition that a case, a suspected case or a positive laboratory result exists.

**Class B:** Diseases of public health concern needing timely response because of potential for epidemic spread. Report by the end of the next business day after the existence of a case, a suspected case or a positive laboratory result is known.

### REPORTABLE DISEASE CHANGES IN OHIO IN 2017

No changes to Ohio's list of reportable diseases occurred in 2017.

Technical Notes continued on next page.

## CASE DEFINITION CHANGES FOR NATIONALLY NOTIFIABLE DISEASES IN 20177

Hepatitis B, perinatal; Lyme disease; salmonellosis; shigellosis; Streptococcus pneumoniae, invasive disease (ISP); tularemia: vibriosis

## PERINATAL HEPATITIS B REPORTING

In Annual Summaries prior to 2016, perinatal hepatitis B data included all case statuses (confirmed, probable and suspected) reported by year that the case was created in ODRS. For consistency with surveillance data reported by the ODH and CDC, perinatal hepatitis B data in Annual Summaries since 2016 include confirmed cases only, reported according to the date the case was counted by the CDC.

#### REPORTING SYSTEMS

Most disease cases in this summary were reported through the Infectious Disease Reporting System (IDRS, a joint effort between Columbus Public Health Department and the Franklin County Public Health). Cases of sexually transmitted infections, HIV/AIDS and tuberculosis have separate reporting systems.

The Ohio Disease Reporting System (ODRS)<sup>8</sup> was developed as a web-based system to make disease reporting more timely and efficient for disease reporters (e.g., hospitals, laboratories and physicians) and to improve communication about infectious disease cases between disease reporters, local health departments and ODH. Currently, ODH, local health departments and infection preventionists have the ability to enter and update case and laboratory reports in ODRS. The system uses patient addresses to determine the correct local health jurisdiction to receive the report for follow-up and investigation. In addition, some laboratories have the ability to electronically upload batches of reports from their databases into ODRS via Electronic Laboratory Reporting (ELR), minimizing paperwork and data re-entry. If a disease report is inadvertently assigned to an incorrect health jurisdiction, the health department receiving the report can re-direct it to the correct jurisdiction. Updates to information can be made to the record in the database, and all fields in the ODH and CDC reporting forms are included in ODRS.

#### **JURISDICTION**

Each case is reported based on the address of residence, and each jurisdictional boundary is determined by tax district. Franklin County Public Health and Columbus Public Health jurisdictions have boundaries that include parts of other counties, such as Delaware, Fairfield, Licking or Union. Cases represented in the tables may live in one of these neighboring counties. If a case lives in a neighboring county but is served by Franklin County Public Health or Columbus Public Health, the case would not be represented in total population of Franklin County listed in the Demographic Profile in this report. Listed below are jurisdictions that Franklin County Public Health or Columbus Public Health serve that may be located in part of another county:

- Canal Winchester (Fairfield)
- Columbus (Delaware, Fairfield)
- Dublin (Delaware, Union)
- New Albany (Licking)
- Pickerington (Fairfield)
- Reynoldsburg (Fairfield, Licking)
- Westerville (Delaware)

#### PAST REPORTS

Previous CPH-FCPH Annual Summaries of Reportable Diseases are available at idrsinfo.com/data.php.

## REFERENCES

- 1. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017. Source: U.S. Census Bureau, Population Division. Release Dates: For the United States, regions, divisions, states and Puerto Rico Commonwealth, December 2017. For counties, municipios, metropolitan statistical areas, micropolitan statistical areas, metropolitan divisions, and combined statistical areas, June 2018. Last accessed: 21 June 2018. http://factfinder.census.gov/.
- 2. Ohio Department of Health, Vital Statistics. Ohio Resident Live Births (2006-Present), Resident Live Births by County of Residence Franklin County, 2017. Last updated: 24 June 2018. Last accessed: 26 June 2018. http://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/OhioLiveBirths.
- 3. Ohio Department of Health. Infectious Disease Control Manual. Last updated: April 2018. Last accessed: 25 April 2018. http://www.odh.ohio.gov/healthresources/infectiousdiseasemanual.aspx.
- 4. Centers for Disease Control and Prevention, Division of STD Prevention. Gonorrhea CDC Fact Sheet (Detailed Version). Last updated: 26 Sept 2017. Last accessed: 25 April 2018. https://www.cdc.gov/std/gonorrhea/stdfact-gonorrhea-detailed.htm
- 5. Kirkcaldy RD, Harvey A, Papp JR, et al. *Neisseria gonorrhoeae* Antimicrobial Susceptibility Surveillance The Gonococcal Isolate Surveillance Project, 27 Sites, United States, 2014. *MMWR Surveillance Summaries* 2016;65(No. SS-7):1-19. https://www.cdc.gov/mmwr/volumes/65/ss/ss6507a1.htm.
- 6. Bazan, JA, Williams Roberts, M, Soge, OO, et al. Rapid Increase in Gonorrhea Cases with Reduced Susceptibility to Azithromycin in Columbus, Ohio. *Sexually Transmitted Diseases* 2018; 45(2):e5-e6. https://journals.lww.com/stdjournal/Citation/2018/02000/Rapid\_Increase\_in\_Gonorrhea\_Cases\_With\_Reduced.15.aspx.
- 7. Centers for Disease Control and Prevention, Division of Health Informatics and Surveillance. National Notifiable Diseases Surveillance System (NNDSS) Search Results for All Conditions. Last accessed: 4 April 2018. http://wwwn.cdc.gov/nndss/conditions/search/.
- 8. Ohio Department of Health. Ohio Disease Reporting System. Last updated: 5 Jan 2015. Last accessed: 27 April 2018. https://www.odh.ohio.gov/healthstats/elr/odrs1.aspx.